

DaimlerChrysler AG

Abstract

A device is proposed for determining the state of a soot particle filter (13) of an internal combustion engine, having an electrical measuring arrangement which is embodied as a soot sensor for measuring a soot deposit. The measuring arrangement comprises an electrical component with a conductor structure for exciting an electrical or magnetic field which can be influenced by the soot deposit and characterizes an electrical or magnetic characteristic variable of the component, and measuring means (24) for measuring the electrical or magnetic characteristic variable of the component as a measure of the soot deposit. According to the invention there is provision for the conductor structure to be arranged in such a way that a partial volume region of the soot particle filter (13) is penetrated by the electrical field, and the partial volume region forms part of the component.

Figure 3.